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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,742	11/09/2001	Jun Koyama	740756-2384	5965

22204 7590 02/24/2004

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WASHINGTON, DC 20004-2128

EXAMINER
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ECKERT II, GEORGE C

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/986,742

Applicant(s)

KOYAMA, JUN.

Examiner

George C. Eckert II

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendments dated October 30, 2003 pertaining to claims 1, 3 and 5, and November 14, 2003 pertaining to claim 18 have been entered of record.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

3. Claims 1, 3, 5 and 15 are objected to because of the following informalities: on line 3 of each claim, delete "minor" and insert --mirror-- therefore. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 and 15, 16, 19, 20, 22, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's prior art as shown in instant figure 5 in view of US 5,365,875 to Asai et al. (of record). Applicant's prior art teaches the various circuit arrangements as instantly claimed including current mirror and differential circuits. However, the prior art does not teach that the circuits use transistors having a gate length of 7  $\mu\text{m}$  or greater or a gate width of 50  $\mu\text{m}$  or greater. Asai et al. teach a transistor having the claimed gate dimensions (col. 8, line 29).

Art Unit: 2815

Applicant's prior art and Asai et al. are combinable because they are from the same field of endeavor. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the transistors of Asai et al. in the device of Applicant's admitted prior art. The motivation for doing so, as is taught by Asai et al., is that transistors having such dimensions and formed as taught by Asai et al. have uniform crystallinity in the semiconductor layer (col. 2, lines 5-13). Therefore, it would have been obvious to combine Applicant's prior art with Asai et al. to obtain the invention of claims 1-6, 15, 16, 19, 20, 22, 25 and 26.

5. Claims 17, 18, 21, 23, 24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's prior art in view of Asai et al. and further in view of Dabral et al. (of record). As discussed above, Applicant's prior art and Asai et al. make obvious a device having the instantly claimed circuit configuration and transistor gate dimensions. However, it is not made obvious by either reference that the transistors have a multi-gate. Dabral et al. teach, with reference to figure 2, a transistor having a multi-gate.

Applicant's prior art and Asai et al. are combinable with Dabral et al. because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to further modify the device of Applicant's prior art and Asai et al. to have a multi-gate as taught by Dabral et al. The motivation for doing so, as is taught by Dabral et al., is that the use of a multi-gate structure will reduce the affect of processing variations in like devices (col. 3, lines 6-8). Therefore, it would have been obvious to combine Applicant's prior art and Asai et al with Dabral et al. to obtain the invention of claims 17, 18, 21, 23, 24, 27 and 28.

***Response to Arguments***


6. Applicant's arguments filed October 30, 2003 have been fully considered but they are not persuasive. Applicant has argued that the 103 rejections are based on Asai et al. as the primary reference. However, it is applicant's admitted prior art that is the primary reference. As pointed out in the rejections, Applicant's prior art teaches the circuit structure of the instant claims. Asai is relied upon for teaching the claimed gate width and length. The rejection is proper because Asai provides motivation for using such dimensions. As such, the argument is not persuasive.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Eckert II whose telephone number is (571) 272-1728.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**GEORGE ECKERT  
PRIMARY EXAMINER**